



Sum and Difference Formulas

↓ Formulas ↓

Find the exact value of the trigonometric function.

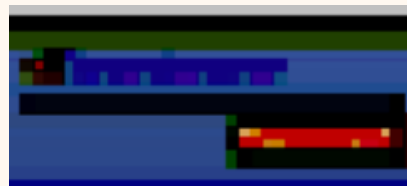
1 $\sin 105^\circ$

A $\frac{\sqrt{2}}{4}(\sqrt{3}-1)$

B $\frac{\sqrt{2}}{4}(1+\sqrt{3})$

C $\frac{1+\sqrt{3}}{1-\sqrt{3}}$

D $\frac{\sqrt{3}-1}{1+\sqrt{3}}$





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Find the exact value of the trigonometric function.

2 $\tan \frac{19\pi}{12}$

A $\frac{\sqrt{2}}{4}(\sqrt{3}-1)$

B $\frac{\sqrt{2}}{4}(1+\sqrt{3})$

C $\frac{1+\sqrt{3}}{1-\sqrt{3}}$

D $\frac{\sqrt{3}-1}{1+\sqrt{3}}$



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Find the exact value of the trigonometric function.

3 $\sin \frac{\pi}{12}$

A $\frac{\sqrt{2}}{4}(\sqrt{3}-1)$

B $\frac{\sqrt{2}}{4}(1+\sqrt{3})$

C $\frac{1+\sqrt{3}}{1-\sqrt{3}}$

D $\frac{\sqrt{3}-1}{1+\sqrt{3}}$



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Find the exact value of each expression.

4 $\cos 40^\circ \cos 10^\circ + \sin 40^\circ \sin 10^\circ$

A $\frac{\sqrt{3}}{2}$

B $-\frac{\sqrt{3}}{2}$

C $\frac{1}{2}$

D $-\frac{1}{2}$



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Find the exact value of each expression.

5 $\sin \frac{\pi}{18} \cos \frac{5\pi}{18} + \cos \frac{\pi}{18} \sin \frac{5\pi}{18}$

A $\frac{\sqrt{3}}{2}$

B $-\frac{\sqrt{3}}{2}$

C $\frac{1}{2}$

D $-\frac{1}{2}$



Sum and Difference Formulas

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Find the exact value of each of the following under the given conditions.

$$\cos \alpha = \frac{1}{\sqrt{5}}, 0 < \alpha < \frac{\pi}{2}$$

$$\sin \beta = -\frac{4}{5}, -\frac{\pi}{2} < \beta < 0$$

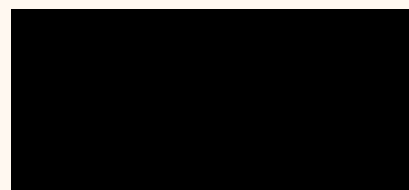
6 $\sin(\alpha + \beta)$

A $\frac{2\sqrt{5}}{5}$

B -2

C $\frac{11\sqrt{5}}{25}$

D $\frac{2\sqrt{5}}{25}$





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Find the exact value of each of the following under the given conditions.

$$\cos \alpha = \frac{1}{\sqrt{5}}, 0 < \alpha < \frac{\pi}{2}$$

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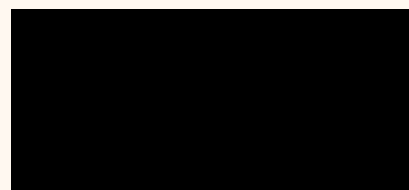
7 $\cos(\alpha + \beta)$

A $\frac{2\sqrt{5}}{5}$

B -2

C $\frac{11\sqrt{5}}{25}$

D $\frac{2\sqrt{5}}{25}$





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Find the exact value of each of the following under the given conditions.

$$\cos \alpha = \frac{1}{\sqrt{5}}, 0 < \alpha < \frac{\pi}{2}$$

$$\sin \beta = -\frac{4}{5}, -\frac{\pi}{2} < \beta < 0$$

8 $\tan(\alpha - \beta)$

A $\frac{2\sqrt{5}}{5}$

B -2

C $\frac{11\sqrt{5}}{25}$

D $\frac{2\sqrt{5}}{25}$



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HW p.488-489 #1, 3, 7, 11, 17, 21, 23, 25